

United States Steel – Midwest Plant 6300 US Highway 12 – MS AE-1 PORTAGE, IN 46368

April 20, 2012

Mr. Gary Starks
Office of Water Quality
Indiana Department of Environmental Management
100 North Senate Avenue – Post Office Box 6015
Indianapolis, IN 46206

Re:

United States Steel Corporation Midwest Plant

NPDES Permit IN0000337

Unauthorized Discharge at Outfall 004

Dear Mr. Starks:

This letter is to serve as a follow up to the phone call that was placed to your office on Monday, April 16, 2012 regarding the unauthorized discharge at United States Steel Corporation — Midwest Plant Outfall 004 (NPDES Permit IN0000337 — effective March 1, 2011), which was discovered on the afternoon of Sunday, April 15, 2012.

Outfall 004 is permitted to discharge treated process waters from Internal Outfalls 104 and 204, storm water, and non-contact cooling water. On April 14, 2012, process water from the tin line evaporator system discharged directly to the Outfall 004 storm sewer system, which is an unauthorized discharge of process waters to the outfall.

On the date of the unauthorized discharge, a recently re-commissioned tin line evaporator experienced an upset condition that contaminated the cooling/condensate water for approximately fifteen minutes during startup. Investigation revealed that the cooling/condensate water piping was routed to the clean water sewer.

In order to prevent a recurrence, the following actions have been or will be taken:

- Re-route the evaporator cooling/condensate piping discharge to the process sewer.
- Install instrumentation to improve monitoring of the tin line evaporator systems.

If you have questions or concerns regarding this matter, please do not hesitate to contact me at 219-888-2339 or via electronic mail at mdsoto@uss.com.

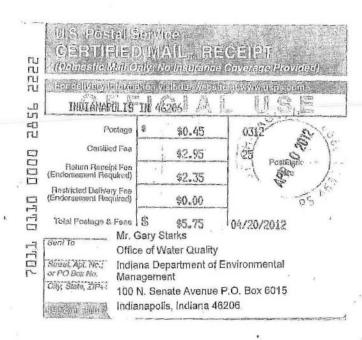
Sincerely.

Mardanna D. Soto

Environmental Compliance

United States Steel Corporation

Gary Works, Midwest Plant, East Chicago Tin





United States Steel – Midwest Plant 6300 US Highway 12 – MS AE-1 PORTAGE, IN 46368

February 8, 2013

Gary Starks
Office of Water Quality
Indiana Department of Environmental Management
100 North Senate Avenue – Post Office Box 6015
Indianapolis, IN 46206

Re: United States Steel Corporation Midwest Plant

NPDES Permit IN0000337

Total Chromium Exceedence at Outfall 304

Dear Mr. Starks:

This letter is to serve as a follow up to the phone call placed to your office on Tuesday, February 5, 2013 regarding the total recoverable chromium exceedence at United States Steel Corporation – Midwest Plant Outfall 304 (NPDES Permit IN0000337 – effective March 1, 2011), which was discovered on the afternoon of Tuesday, February 5, 2013.

Outfall 304 is the combined discharge of internal Outfalls 204 (Chrome Treatment) and 104 (Final Treatment Plant) with final discharge to Burns Waterway through Outfall 004. On February 3, 2013, a treatment plant process control pH excursion was experienced on one of the two process trains at the Chrome Treatment Plant. This excursion caused soluble chromium to carry through to the discharge of Outfall 204 and subsequently Outfall 304. Current process control configuration triggers alert at a combined tank prior to discharge. The process control parameters were not triggered at this combined location during the incident.

In order to prevent a recurrence, the following actions will be taken:

- USS personnel will equip each process train effluent with automated process controls for shut down prior to combining at the final tank
- USS personnel will revise procedures accordingly to reflect new automation and associated corrective action guidance.

If you have questions or concerns regarding this matter, please do not hesitate to contact me at 219-888-3369 or via electronic mail at LELegler@uss.com.

Sincerely,

Lauren E. Legler

Environmental Compliance

United States Steel Corporation

Gary Works, Midwest Plant, East Chicago Tin

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Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you.	XEB 1 2013	☐ Agent ☐ Addressee
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Gary Starks Office of Water Quality Indiana Department of Environmental Management		
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United States Steel Corporation – Gary Works One North Broadway, MS 70-A GARY, IN 46402

CERTIFIED MAIL

August 21, 2013

Indiana Department of Environmental Management Office of Water Quality - NPDES Permits Section Mail Code 65-42CB 100 North Senate Avenue Indianapolis, IN 46204-2251

Re: United States Steel Corporation - Midwest

NPDES Permit IN0000337 Outfall 004 WET Violation

As required by NPDES Permit IN0000337 (effective March 1, 2011) Part II.C.3, U. S. Steel Midwest Plant (USS) is making written notification to IDEM within 5-days of becoming aware of the circumstance regarding the Whole Effluent Toxicity (WET) violation at Outfall 004 for the August 2013 test. Verbal notification within 24-hours was made to your offices on Friday, August 16, 2013 regarding this incident.

The limit for WET at Outfall 004 is 1.5 TUc (chronic toxicity) for both *C. dubia* and Fathead Minnows (Part I.A.19). This limit was effective upon issuance of the permit, with no compliance schedule for this parameter. Per Part I.L.1.f.(1), toxicity is also demonstrated if the Outfall 004 effluent exceeds 1.0 TUa (acute toxicity).

USS successfully completed the June and July 2013 sampling with the following results (sampling was on June 2, 4 and 6 and July 7, 9 and 11):

Table 1: June WET Results

		Acı	ute Toxic	city				(Chronic Toxici	ty	
Species	Outfall	TUa Criteria	LC50	TUa (100/LC50)	Pass/Fail	TUc Limit	IC25	NOEC	TUc (100/NOEC)	TUc (100/IC25)	Pass/Fail
EM	004	1.0	100	1.0	PASS	4.0 7015-	>100	100	1.0	1.0	PASS
CD	004	TUa	100	1.0	PASS	1.5 TUc	73.4	67	1.5	1.4	PASS

Table 2: July WET Results

	Acute Toxicity			Chronic Toxicity							
Species	Outfall	TUa Criteria	LC50	TUa (100/LC50)	Pass/Fail	TUc Limit	IC25	NOEC	TUc (100/NOEC)	TUc (100/IC25)	Pass/Fail
FM	004	1.0	100	1.0	PASS	a # 1713_	>100	100	1,0	1.0	PASS
CD	004	TUa	100	1.0	PASS	- 1.5 TUc	85.2	67	1.5	1.2	PASS



The August 2013 chronic results for *C. dubia* were over the 1.5 TUc permit limit, with the following summary (sampling was on August 4, 6 and 8): **Note**: toxicity was not demonstrated on an acute basis)

Table 3: August WET Results

		Acı	ite Toxic	city				C	hronic Toxicity		
Species	Outfall	TUa Criteria	LC50	TUa (100/LC50)	Pass/Fail	TUc Limit	IC25	NOEC	TUc (100/NOEC)	TUc (100/IC25)	Pass/Fail
FM		1.0	100	1.0	PASS	4 5 701	>100	100	1	1	PASS
CD	004	TUa	100	1.0	PASS	1.5 TUc	50	34	2.9	2.0	FAIL

The confirmation testing for toxicity will take place within two weeks of obtaining the initial failure results as specified in the permit. Confirmation sampling will take place on August 25, 27, and 29. If toxicity is demonstrated on two consecutive sampling events at Outfall 004, USS will immediately begin the implementation of a TRE (toxicity reduction evaluation) as per part I.L.2 of the permit. If required the root cause of the toxicity and corrective/preventive actions will be identified during the TRE.

If you have any questions regarding this submittal, please do not hesitate to contact me at 219-888-3369, or via electronic mail at LELegler@uss.com.

Sincerely,

Hauren Legler

Water Compliance Manager

Environmental Control

United States Steel Corporation

Gary Works, Midwest Plant, East Chicago Tin Operations

CC: Stan Rigney

Indiana Department of Environmental Management

Office of Water Quality

NPDES Permits Section

100 North Senate Ayenue

Indianapolis, IN 46204-2251



United States Steel Corporation — Gary Works One North Broadway, MS 70-A GARY, IN 46402

CERTIFIED MAIL

December 17, 2013

Indiana Department of Environmental Management Office of Water Quality - NPDES Permits Section Mail Code 65-42CB 100 North Senate Avenue Indianapolis, IN 46204-2251

Re:

United States Steel Corporation - Midwest Plant

NPDES Permit IN0000337 Outfall 004 Discoloration

As required by NPDES Permit IN0000337 (effective March 1, 2011) Part II.C.3, U. S. Steel Midwest Plant (USS) is making written notification to IDEM within 5-days of the observed discoloration at Outfall 004 that occurred on December 12, 2013. Verbal notification was made to your offices immediately upon the discovery of the incident on December 12th at approximately 2:15 PM.

Root cause investigation determined the treatment plant failed to adequately treat an upset condition caused by caustic cleaner that entered the system at a rate greater than normally expected. This resulted in cloudy discoloration at the final discharge to Burns Waterway, Outfall 004.

In order to prevent a recurrence, the following corrective actions will be implemented:

- Evaluate caustic cleaner systems and update procedures and/or discharge limiting equipment to better manage discharge rate
- Evaluate treatment system to optimize treatment of caustic cleaner

If you have any questions regarding this submittal, please do not hesitate to contact me at 219-888-3369, or via electronic mail at LELegler@uss.com.

Sincerely,

Lauren Legler

Water Compliance Manager

Environmental Control

United States Steel Corporation

Gary Works, Midwest Plant, East Chicago Tin Operations

CC: Stan Rigney, Indiana Department of Environmental Management Nick Ream, Indiana Department of Environmental Management

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so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.	B. Received by (Printed Name) C. Date of Delivery
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NONCOMPLIANCE 24-HOUR NOTIFICATION REPORT

State Form 52415 (R / 10-13) Indiana Department of Environmental Management Office of Water Quality

INSTRUCTIONS: Complete all sections of this form and email it to Office of Water Quality, Compliance Data Section at www.eports@idem.IN.gov. Thorough completion of this report will satisfy the Office of Water Quality (OWQ) telephone and 5-day written noncompliance notification reporting requirements of your NPDES permit. To speak with someone in OWQ, call (317) 232-8670.

Additionally, any noncompliance which may pose a significant danger to human health or the environment (including a fish kill) must be immediately reported to the Emergency Response Section spill response line at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

Facility Name	County	NPDES Permit Number
U. S. Steel Midwest Plant	Porter	IN0000337
Individual Reporting	Telephone Number	Reporting Date (month, day, year)
Lauren Legler	219-888-3369	June 17, 2014
Email Address		
LELegler@uss.com		
	NONCOMPLIANCE INFORMATION	
h. dav. vear) Outfall Parar		

Date (month, day, year)	Outfall	Parameter	Permit Limit (Units/Daily/Weekly/Ave/Max/Min)	Monitored Value
June 8 - 13, 2014	004	Whole Effluent Toxicity	1.5 TUc Monthly Average - Frequency Quarterly	2.31
Date (month, day, year)	Outfall	Parameter	Permit Limit (Units/Daily/Weekly/Ave/Max/Min)	Monitored Value

Description of the Noncompliance and its Cause:

The limit for Whole Effluent Toxicity (WET) at Outfall 004 is 1.5 TUc (chronic toxic unit) for C. dubia (Part I.A.19). This limit was effective upon issuance of the permit, with no compliance schedule for this parameter. Per Part I.L.1.f.(1), toxicity is also demonstrated if the Outfall 004 effluent exceeds 1.0 TUa (acute toxicity). The limitation for chronic WET was exceeded during the second quarter 2014 WET testing in June at the Midwest Plant Outfall 004, final discharge to Portage-Burns Waterway. NOTE: toxicity was also demonstrated on an acute basis. Outfall 004 is authorized to discharge treated process wastewater including treated chrome and Greenbelt II leachate (internal Outfalls 104 and 204), non-contact cooling water and storm water runoff.

Description of the Period of Noncompliance, Including Exact Dates and Time, and if the Noncompliance has not been Corrected, the Anticipated Time it is Expected to Continue:

Samples were collected on June 8, 10, 12 over a 24-hour period and arrived at the ENVIRON Toxicology Laboratory on June 10, 12, and 14.

Steps Taken or Planned to Reduce, Eliminate, and Prevent Reoccurrence of the Noncompliance;

The confirmation testing for toxicity will take place within two weeks of obtaining the initial failure results as specified in the permit. Confirmation sampling will take place on June 22, 24, and 26. If toxicity is demonstrated on two consecutive sampling events at Outfall 004, USS will immediately begin the implementation of a TRE (toxicity reduction evaluation) as per part I.L.2 of the permit. If required the root cause of the toxicity and corrective/preventive actions will be identified during the TRE.

CERTIFICATION AND SIGNATURE

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

DATE (month, day, year):



NONCOMPLIANCE 24-HOUR NOTIFICATION REPORT

State Form 52415 (R / 10-13) Indiana Department of Environmental Management Office of Water Quality

INSTRUCTIONS: Complete all sections of this form and email it to Office of Water Quality, Compliance Data Section at www.reports@idem.IN.gov. Thorough completion of this report will satisfy the Office of Water Quality (OWQ) telephone and 5-day written noncompliance notification reporting requirements of your NPDES permit. To speak with someone in OWQ, call (317) 232-8670.

Additionally, any noncompliance which may pose a significant danger to human health or the environment (including a fish kill) must be immediately reported to the Emergency Response Section spill response line at: (317) 233-7745 or toil free within Indiana at (888) 233-7745.

Facility Name	County	NPDES Permit Number
U. S. Steel Midwest Plant	Porter	IN0000337
Individual Reporting	Telephone Number	Reporting Date (month, day, year)
Lauren Legler	219-888-3369	03-27-2015

LELegler@uss.com

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Date (month, day, year)	Outfall	Parameter	Permit Limit (Units/Daily/Weekly/Ave/Max/Min)	Monitored Value
03-19-2015	304	Oil & Grease	Daily Maximum = 765 lb/day	848.3 lb/day
Date (month, day, year)	Outfall	Parameter	Permit Limit (Units/Daily/Weekly/Ave/Max/Min)	Monitored Value
N/A	N/A	N/A	N/A	N/A

Description of the Noncompliance and its Cause:

Loss of oil processing capabilities at the OilTech facility caused oil and greases to accumulate through the treatment system during the week prior to the incident. On Thursday March 19, the malfunction of the west basin oil skimming equipment and subsequent basin isolation contributed to increased throughput in the operating basin and oil loading at Outfall 104. Pursuant to Part II.B.3, Outfall 304 via Outfall 104 (Final Treatment Plant) experienced an upset condition in which high oil inventories throughout the water treatment system caused an oil & grease daily maximum loading violation. Results from March 19, 2015 were received from the laboratory on Thursday, March 26, 2015.

Description of the Period of Noncompliance, Including Exact Dates and Time, and if the Noncompliance has not been Corrected, the Anticipated Time it is Expected to Continue:

3/19/15 Outfall 104 Oil & Grease Loading = 843.3 lb/day (North Final Treatment Plant discharge)

3/19/15 Outfall 204 Oil & Grease Loading = 5.0 lb/day (Chrome Treatment Plant discharge)

3/19/15 Outfall 304 Oil & Grease = 848.3 lb/day (combined discharge of Outfall 104 & 204)

This event was isolated to a less than-twenty-four (24) hour interval. Oil & Grease analytical at Outfall 104 is based on a 3 part grab within the 24 period: Grab A (3/19 at 7:33 AM) 7.7 mg/L, Grab B (3/19 at 10:15 PM) 20 mg/L, and Grab C (3/20 at 7:28 AM) 3.3 mg/L. Additionally on March 22, the next scheduled sample day, analytical results at Outfalls 104 were within historical ranges and Outfall 304 was in compliance.

Steps Taken or Planned to Reduce, Eliminate, and Prevent Reoccurrence of the Noncompliance:

- 1 Utilize the NW API to store, break & process oil to manage the oil inventories
- Develop contingency plan for offsite disposal of excess accumulated oils which cannot be processed by onsite vendor

CERTIFICATION AND SIGNATURE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are signi cant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE:

DATE (month, day, year): 3-27-2015



United States Steel Corporation Gary Works One North Broadway Gary, IN 46402-3199

VIA CERTIFIED MAIL

April 5, 2016

Gary Starks
Office of Water Quality
Indiana Department of Environmental Management
100 North Senate Avenue – Post Office Box 6015
Indianapolis, IN 46206

Re:

United States Steel Corporation Midwest

NPDES Permit IN0000337

5-Day Follow-up to Outfall 004 Discoloration

Dear Mr. Starks:

This letter is to serve as a follow up to the phone call conversations that Mark Henry had with Dave Greinke of the IDEM Emergency Response Office between Friday, April 1, 2016 and April 5, 2016 regarding a discoloration to Burns Waterway at United States Steel Corporation Midwest, Outfall 004 (NPDES Permit IN0000337 – effective April 1, 2016).

Agency Notifications:

IDEM – Incident No. 62201 – April 1, 2016 NRC – Incident No. 1144260 – April 1, 2016 IDEM – Incident No. 62237 – April 5, 2016 NRC – Incident No. 1144532 – April 5, 2016

Outfall 004 is permitted to discharge process water from internal outfalls 104 and 204, and non-contact cooling water to the Burns Waterway. On April 1, 2016, U. S. Steel observed a white discoloration at Outfall 004, notified the agencies, and immediately began investigating. Noncontact cooling water from the Double Cold Reduction (DCR) Mill was quickly identified as the source, and the line was shut down to prevent further environmental impact. Initial process sampling indicated that approximately three (3) gallons of Morg Oil had leaked through the Morg Oil Heat Exchanger into the noncontact cooling water. The suspect heat exchanger was replaced on Saturday, April 2, and the line was restarted without incident. Dylan Caikowski of the U.S. Coast Guard was on site following the startup on April 2 to inspect Outfall 004 & the surrounding area. No deficiencies were identified.

U. S. Steel continued additional visual observation of Outfall 004, and on April 5, 2016, we observed white discoloration at Outfall 004, immediately shut down the DCR Mill, and notified the agencies. A deeper investigation revealed that a hydraulic oil system for the DCR was leaking into the service water upstream of the Morg Oil Heat Exchanger, leading to the misidentification of the root cause. The hydraulic oil system utilizes in-line mixing to periodically make-up the hydraulic oil reservoir. The controls for the make-up had malfunctioned, causing hydraulic oil to back feed into the service water main and pass through the Morg Oil Heat

Exchanger, eventually discharging through Outfall 004. Process sampling indicated that approximately 22 gallons of hydraulic oil was discharged before the DCR Mill could be shut down.

Dave Greinke of IDEM was on site on April 5, 2016 and observed Outfall 004 after the DCR Mill had been shut down. No deficiencies were identified.

- U. S. Steel has identified the following corrective actions addressing this incident that will be implemented immediately.
 - Isolate the hydraulic oil makeup system from the service water feed and eliminate inline mixing to eliminate the potential for backflow – Completed April 5, 2016
 - 2. Investigate similar configurations throughout the operating units to prevent similar incidents

If you have questions or concerns regarding this matter, please do not hesitate to contact Mark Henry at 219-763-5869 or via electronic mail at Mhenry@uss.com

Sincerely,

Joseph E. Hanning, P.E.

Director - Environmental Control

Gary Works, Midwest Plant, East Chicago Tin

CC: Beth Noel (electronic)

N. Ream - IDEM Northwest Regional Office

D. Greinke - IDEM Emergency Response

D. Caikowski – United States Coast Guard

M. Henry - U. S. Steel

E. Williams - U. S. Steel

R. Casselberry - U. S. Steel